

The claimed invention is:

1. A commanding system for a computer, comprising:
 - a memory storing an input module that accepts input from a device in communication with the computer, a commanding node having a table of bindings that connect the input to associated action, each binding in the table of bindings including a command binding and associated command handler, and a service having a table of service bindings, each service binding in the table of service bindings including a command binding and associated command handler; and
- 10 a processor in data communication with the memory, the processor programmed to:
 - attach the service to the commanding node;
 - receive the input from the input module;
 - pass the input to the commanding node, the commanding node looking up a matching command binding associated with the input in the table of bindings;
- 15 pass the input to the service, the service looking up the matching command binding associated with the input in the table of service bindings; and
 - invoke a command handler associated with the matching command binding if the matching binding is found in either the table of bindings or the table of service bindings.
- 20 2. The system of claim 1, wherein the processor is further programmed to attach the service to the commanding node at run-time.
- 25 3. The system of claim 1, wherein the memory further comprises a second commanding node, and wherein the processor is further programmed to attach a second service to the second commanding node at run-time.
- 30 4. The system of claim 1, wherein the table of service bindings includes binding entries not included in the table of bindings of the commanding node.
5. The system of claim 1, wherein the table of service bindings includes binding entries that differ from binding entries included in the table of bindings of the commanding node.

6. The system of claim 1, wherein the processor is further programmed such that, if the matching binding is found in the table of bindings of the command node, the command node passes the input to the service prior to invoking a command handler.

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7. The system of claim 1, wherein the memory further comprises a second commanding node including a second table of bindings, and wherein the processor is further programmed such that, if the matching binding is not found in the table of bindings of the commanding node, the input is passed to the second commanding node, wherein the second commanding node looks up the matching binding in the table of second bindings.

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8. The system of claim 7, wherein passing the input from the commanding element to the second commanding element is a bubble operation, and wherein the processor is programmed to perform additional bubble operations.

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9. The system of claim 1, wherein each binding entry in the table of bindings in the memory includes at least a command binding, a command, and a command handler.

10. The system of claim 1, wherein the commanding node represents an element of a user interface that is implemented at a control level.

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11. A computer readable medium having data structure stored thereon for use in commanding within a computing environment, the data structure comprising:

a first binding table for a first commanding node, the first binding table including a plurality of first bindings, each binding of the first bindings including a command binding, a command, and a handler; and

5 a service binding table for a service attached to the commanding node, the service binding table including a plurality of service bindings, each binding of the service bindings including a command binding, a command, and a handler.

10 12. The computer readable medium as defined in claim 11, further comprising a second binding table for a second commanding node, the second binding table including a plurality of second bindings, each binding of the second bindings including a command binding, a command, and a handler.

15 13. The computer readable medium as defined in claim 12, wherein the first and second commanding nodes form a tree.

14. The computer readable medium as defined in claim 13, wherein the tree is further formed by a plurality of additional nodes, each node of the plurality of additional nodes including a 20 binding table with a plurality of bindings.

15. The computer readable medium as defined in claim 14, wherein a service is attached to one node of the plurality of additional nodes.

16. A method for commanding a computer system, comprising:
receiving input from a user of the computer system;
passing the input to a commanding node;
looking up a matching binding associated with the input in a table of bindings;
5 passing the input to a service coupled to the commanding node;
looking up the matching binding associated with the input in a table of service bindings;
and
invoking a handler associated with the input.

10 17. The method of claim 16, further comprising attaching the service to the commanding node.

18. The method of claim 16, further comprising attaching the service to the commanding node at run-time.

15 19. The method of claim 16, further comprising passing the input to a second commanding node.

20. The method of claim 19, further comprising attaching a second service to the second 20 commanding node.